ABSTRACT OF THE DISCLOSURE

A control system for a compression ignition internal combustion engine is provided which is capable of expanding a region for executing compression ignition, on the low-load side, while positively obtaining a required power output from the engine. The amount of residual combustion gas is determined depending on operating conditions of the engine, and based on the determined amount of residual combustion gas, part of combustion gas is retained in each combustion chamber after combustion. It is judged whether or not supercharging of fresh air should be executed for self-ignition, based on the operating conditions of the engine, and when it is judged that the supercharging should be executed, supercharging of fresh air flowing to the combustion chamber is executed.